

**Amendments to the Specification**

Please add paragraphs [54]-[64] with the following:

[54] Figure 5 is a block/flow diagram illustrating a bounded model checking (BMC) search with proof analysis.

[55] Figure 6 is a block/flow diagram illustrating an example of interface constraints  $IF(L,k)$  for a latch in a design for  $k=2$ .

[56] Figure 7 is a transition relation of a design.

[57] Figure 8 is a block/flow diagram illustrating an iterative abstraction framework.

[58] Figure 9 is a block/flow diagram illustrating a method for generating a new model for the same iteration of an iterative abstraction flow.

[59] Figure 10 is a block/flow diagram illustrating a proof analysis-based refinement procedure.

[60] Figure 11 is a block/flow diagram illustrating a BMC search technique to search for a counterexample on an abstract model.

[61] Figure 12 is a block/flow diagram illustrating a BMC proof technique.

[62] Figure 13 is a block/flow diagram illustrating a BDD-based/BDD+SAT-based model checking method.

[63] Figure 14 is a block/flow diagram illustrating a BDD-based/BDD+SAT-based reachability analysis method.

[64] Figure 15 is an example of an implication graph leading up to a conflict.